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(H)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/882,415    06/25/97    ZHANG

S    MIT-7762

EXAMINER
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HM22/0330

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ACHUTAMURTHY, P.	
ART UNIT	PAPER NUMBER

1618

DATE MAILED:

03/30/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**08/882,415**

Applicant(s)  
**Zhang et al**

Examiner  
**P. Achutamurthy**

Group Art Unit  
**1618**



☒ Responsive to communication(s) filed on Jan 21, 1999

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire THREE month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-21 is/are pending in the application.

Of the above, claim(s) 20 and 21 is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-19 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 9

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## **DETAILED ACTION**

### ***Election/Restriction***

Applicants' remarks regarding the restriction requirement is noted. Currently claims 19 and 20 are withdrawn from further consideration as being drawn to non-elected invention and the restriction requirement will be revisited at a later time provided the presently elected claims become allowable.

### ***Claim Rejections - 35 USC § 102***

#### **Rejection B**

Claims 1-17 are rejected under 35 U.S.C. 102(a) as being anticipated by Wang et al (Chem. Abstracts, volume 125, abstract NO. 257089b). The reference clearly teaches peptide monolayers formed on a substrate which are of the recited type.

### ***Claim Rejections - 35 USC § 103***

#### **Rejection C**

Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (cited in rejection B above) in view of Kumar et al (US patent 5,512,131), for the reasons of record in the Office action dated July 8, 1998 (Paper No. 6).

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*Response to Amendment/Argument(s)*

Applicant's arguments filed January 21, 1999 have been fully considered but they are not persuasive with respect to rejections B and C.

It is initially noted that objection to the specification and Rejection A are withdrawn in view of the amendments to the claims and applicants' arguments.

With respect to Rejection A, it is mainly argued that the reference does not teach deposition of the monolayer in a predetermined pattern. However this argument is not persuasive because it is noted that the abstract of the reference teaches that "well-ordered protein assemblies on metallic substrates can be produced with proper choice of peptide chain structure and terminal residues" which is interpreted to imply a selected or predetermined order of deposition of the monolayers.

With respect to Rejection, the inclusion of claim 19 was an inadvertent error. The claims included in this rejection are 18 and 19. With respect to Kumar et al applicants argue that this reference does not suggest that peptides can be used as linkers. It is first to noted that the claims do not characterize the peptides as linkers in any distinguishable manner. Secondly, the overall teachings of Kumar et al are such that they encompass forming monolayers of a variety of molecules including peptides; see column 3, lines 3-20, and the paragraph bridging column 11 and 12. Applicants also argue that Kumar et al do not suggest or teach that a coating material can be applied in a predetermined pattern. Again such embodiments are not outside the teachings of the reference, see for example column 3, lines 3-20. Applicants further argue the rejection of the

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claims based on limitations that are not present in the claims, such as assembling the peptides not a closely packed ordered monolayer such as beta-sheet structures. Finally, it would appear that applicants are arguing the references separately but it is emphasized that the rejection is based on a combination of the references rather than on their individual teachings.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to **Group Art Unit 1618.**

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Achutamurthy whose telephone number is (703) 308-3804. The examiner can normally be reached on Monday-Thursday from 7:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald E. Adams, Ph.D., can be reached on (703) 308-0570. The fax phone number for this Group is (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.



PONNATHAPURA ACHUTAMURTHY  
PRIMARY EXAMINER  
GROUP 1800

pa  
March 28, 1999